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NAVAL INVENTORY CONTROL POINT

ATG PAC
SAN DIEGO, CA

UNITED STATES NAVY SERIAL NUMBER TRACKING

SNT

SNT

www.snt.navsup.navy.mil

Ready. Resourceful. Responsive!

MATT MULLINS
CDR, USN
27-28 JULY 2004

Outline

- Background/Overview
- Implementation
  - ✓ System Access
  - ✓ AIT
- Demonstrations
- Aviation Rollout
- Military Standards
  (Product, Package, Contracts, IRRD)
- Web Site - Reports
- Future / Initiatives
- Summary

How SNT Got Started

Aviation Maintenance-Supply Readiness (AMSR) Review – 1998

Challenge:

- ↓ Lower Maintenance & Supply Cost
- ↑ Increase Readiness

System Concept

Definition:

Closed-loop, cradle-to-grave tracking of maintenance critical, serialized components, providing asset visibility and material status, and enabled by automatic identification technology (AIT)

Plan:

Collect data through interfaces with various supply and maintenance systems and provide access to stakeholders via a Virtual Shared Data Warehouse

SNT System Goals

Major Benefits

Maintenance

- Identify Maintenance Deficiencies
- Measure Reliability
- Accurate Record Configuration
- Determine Training Requirements
- Assist Engineering Investigations

Supply

- Assess Repair Turn Around Time
- Decrease Misidentification and Losses
- Warranty Management
- Predict Parts Requirements
- Better Procurement Decisions
- Measure Reliability
- Achieve Total Asset Visibility

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SNT Foundation

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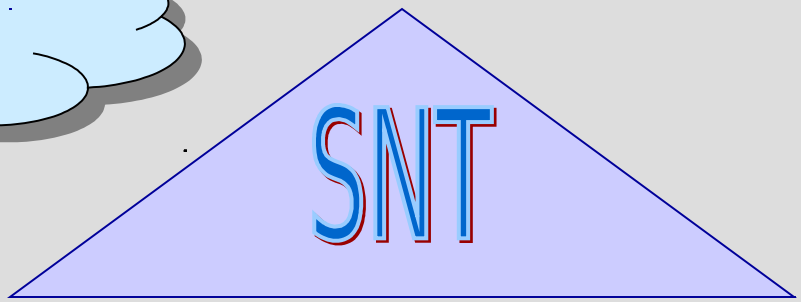
Implementation

SNT requires two components



FIRST

Live access to databases via the SNT Web-enabled portal.

Data Base Access

- WMRIL/A-ORS
- eRMS/WMPS
- UICP
- WEB-CAV
- CAV-ORM
- CAV-Navy
- FACTS
- OOMA/OIMA
- R-Supply
- IBS

AIT

- CMB
- 2D Data matrix
- PDF417 2D
- ISO15418/15434
- MIL-STD-129
- MIL-STD-130
- MSL
- IRRD

SECOND

Automatic Identification Technology (AIT) is used by SNT to maintain data accuracy.

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Aviation Asset/Information Flow

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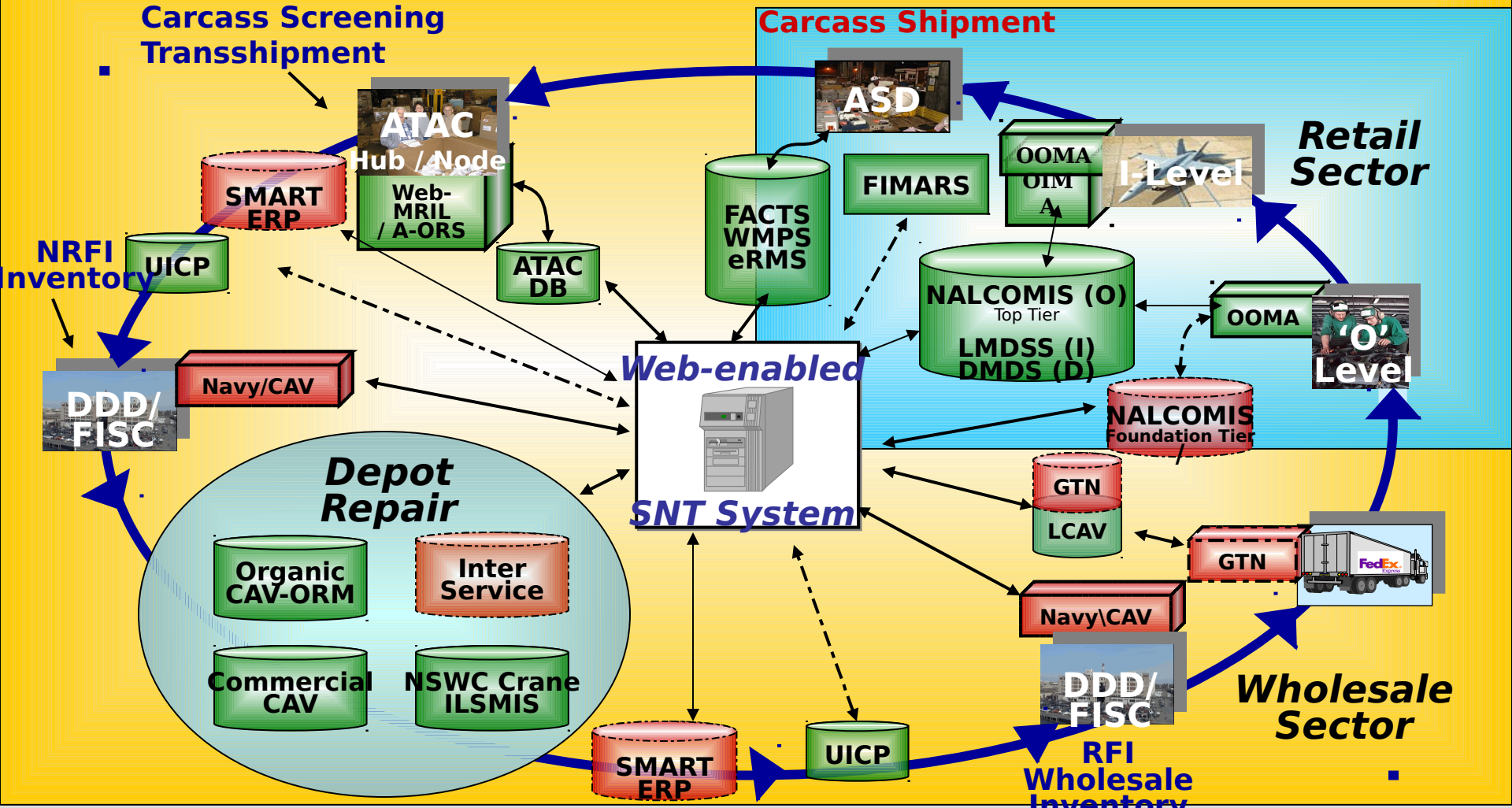
Overview

Information Systems



Connectivity | Not Connected | S/N | No S/N | Asset Flow

CMB

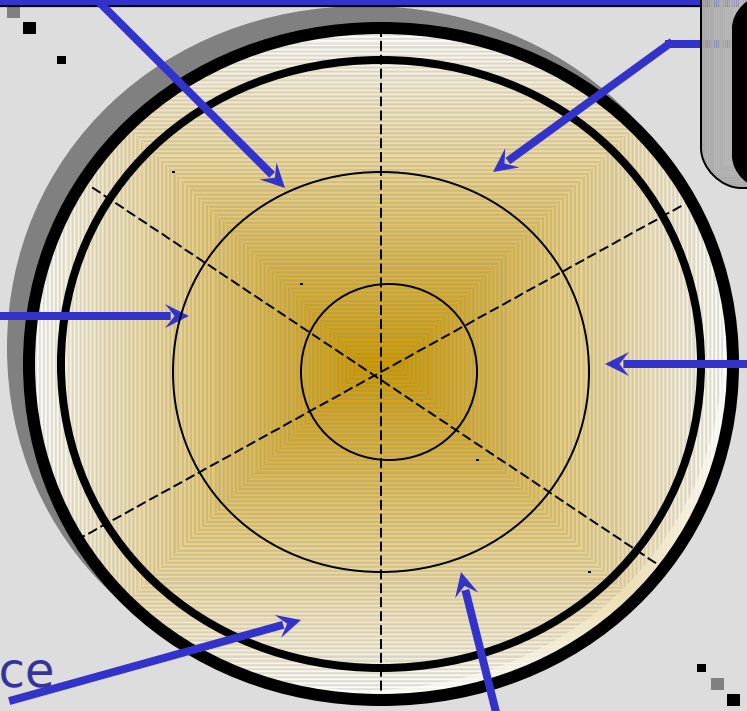
Contact Memory Button (CMB)

Scheduled Removal Component Card

Name Plate Data

Computer, Air Data CPU-175/A

P/N	50-100-01	SERNO	0152
MFR	K0656	CONTR	F33657-85C-0025



Maintenance History**

Warranty Data

CMB Stats:
- 2k,8k,32k
- ~$7-$13 each
- Read/Write
- Dual CMB/BC Reader $1200

**Use TBD within aviation maintenance

Available for Vendor Use

Available for Future Navy Use

Demonstrations

- H-60/HSL-40
- SCADC
- SQQ-32 SONAR
- HOSS Camera (AN/SXY-1)
- CAMS II A5 MODULE on SUBMARIN

Steps to Marking Parts

- Identify Parts to be Marked
- Get Approval
- Update Drawings & Technical Manuals & Directives
- Provide Configuration & ILS Support
- Establish Plan for Marking
  - Plane Side
  - Warehouse (Wholesale & Retail)
  - Amend Repair Contracts/ New Items for Supply

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Unique Identification (UID)

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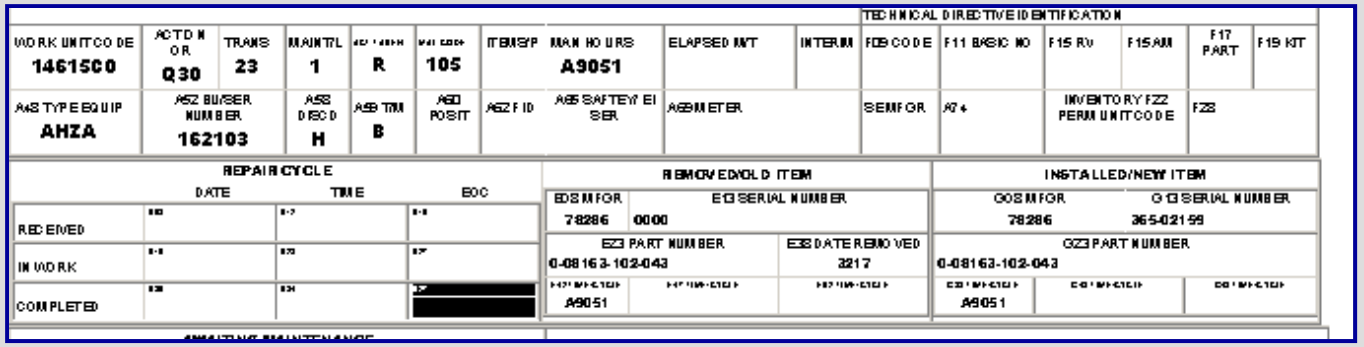
- UID consists of CAGE, P/N, S/N. Be able to create UID (w
- Groundwork laid by many databases accessed by SNTS
- Requirement to be added to contracts as policy develop



CAGE	Part Number	Serial Number
78286	G0816102043	365-02519
68286	G0816102043	365-02520

Unique Identifier
D178286G081610204336502519

Data Matrix/UID Marking

AC D1

CAGE 78286

Part Number G0816102043

Serial Number 36502519

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Retrograde from Customer

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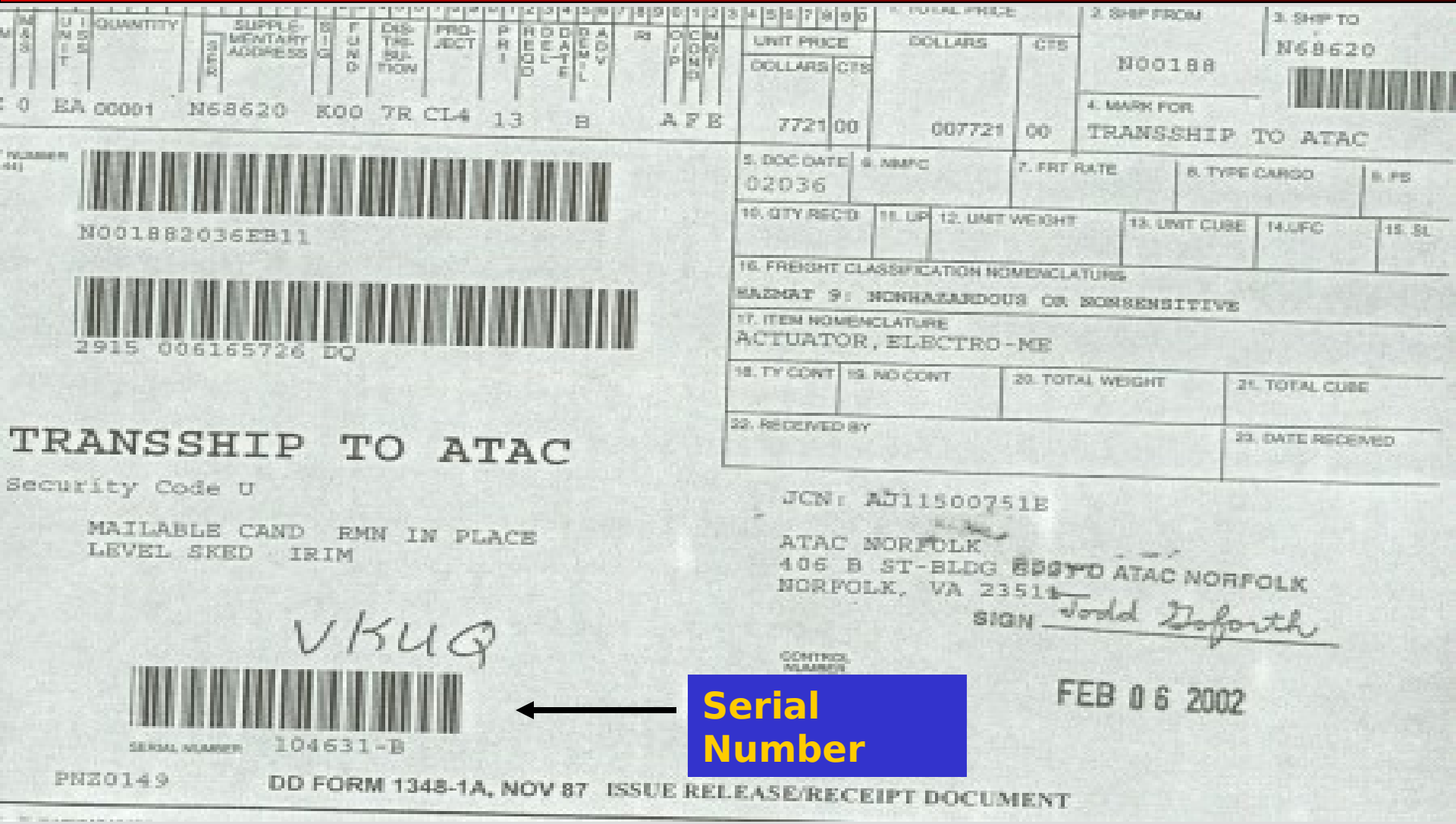
IRRD - AIT



Serial Number

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Retrograde to DD

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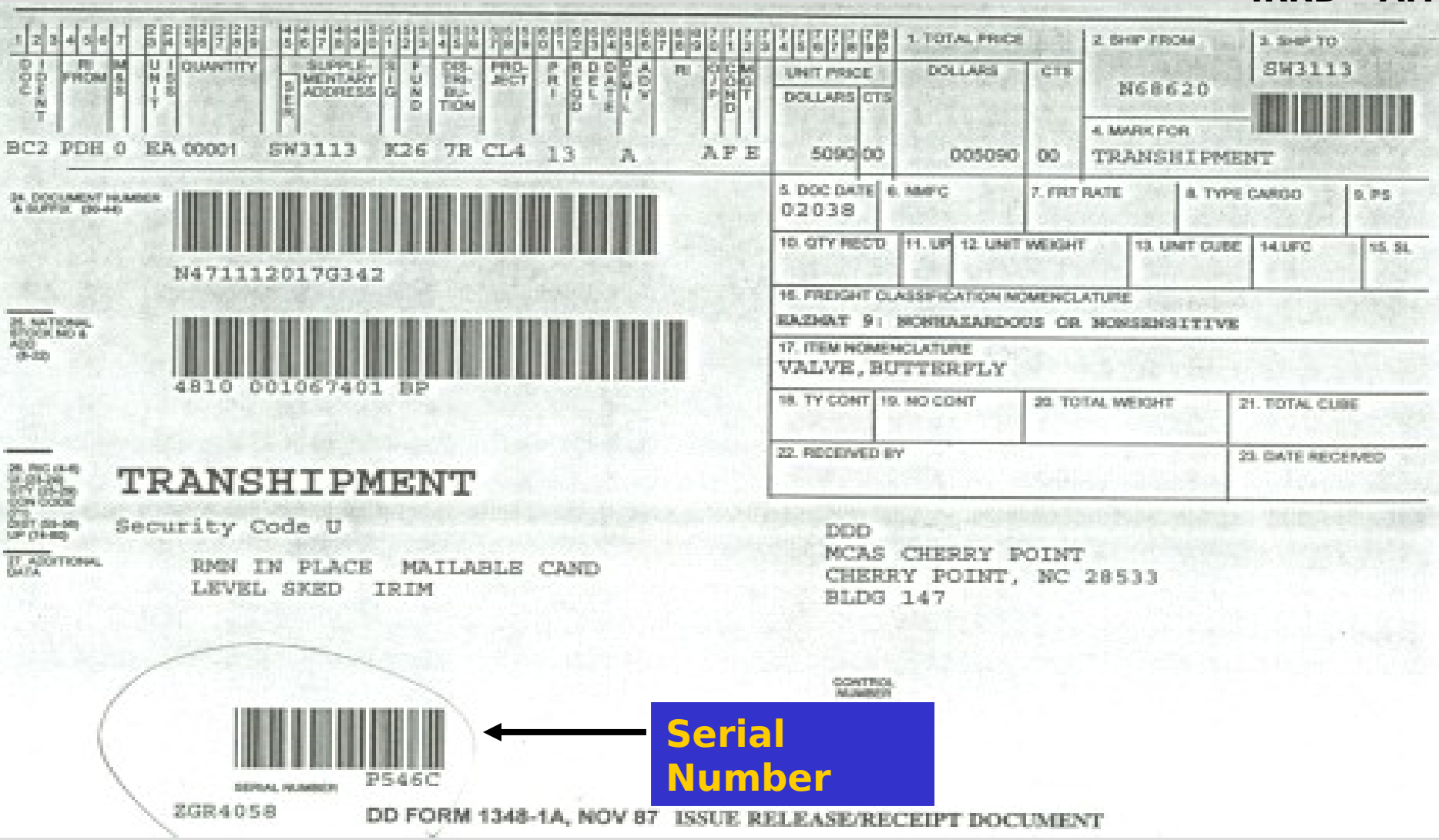
IRRD – AIT



Serial Number

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SNT Homepage

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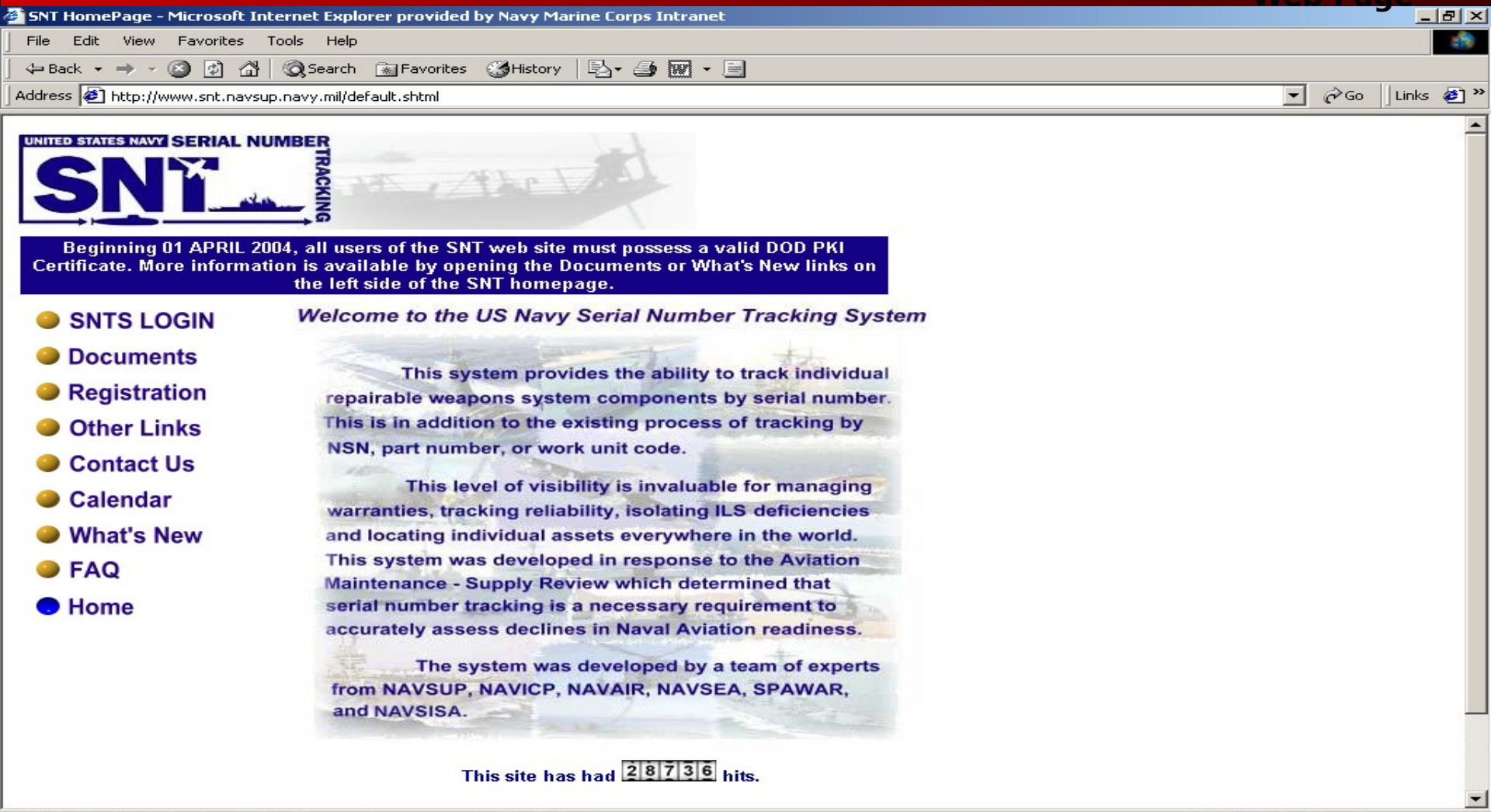
Web Page


SNT HomePage - Microsoft Internet Explorer provided by Navy Marine Corps Intranet
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Address http://www.snt.navsup.navy.mil/default.shtml
Go Links
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Beginning 01 APRIL 2004, all users of the SNT web site must possess a valid DOD PKI Certificate. More information is available by opening the Documents or What's New links on the left side of the SNT homepage.
SNTS LOGIN
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Registration
Other Links
Contact Us
Calendar
What's New
FAQ
Home
Welcome to the US Navy Serial Number Tracking System
This system provides the ability to track individual repairable weapons system components by serial number. This is in addition to the existing process of tracking by NSN, part number, or work unit code.
This level of visibility is invaluable for managing warranties, tracking reliability, isolating ILS deficiencies and locating individual assets everywhere in the world. This system was developed in response to the Aviation Maintenance - Supply Review which determined that serial number tracking is a necessary requirement to accurately assess declines in Naval Aviation readiness.
The system was developed by a team of experts from NAVSUP, NAVICP, NAVAIR, NAVSEA, SPAWAR, and NAVSISA.
This site has had 28736 hits.
(1 item remaining) Opening page http://www.snt.navsup.n
Internet
Start
Inbox - Microsoft Outlook
Microsoft
14:51

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SNT Web Page Query Results

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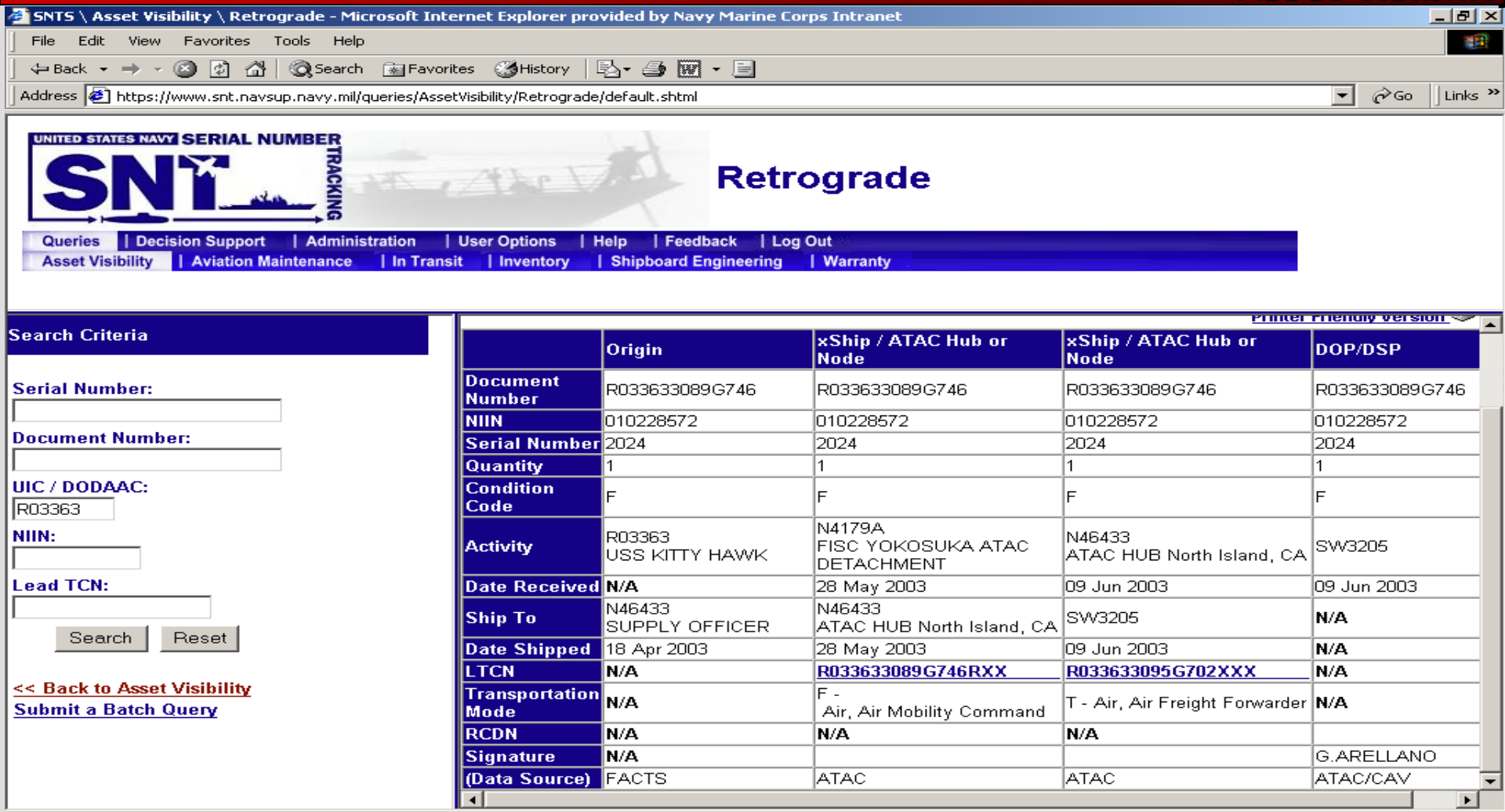
Asset Visibility


SNTS \ Asset Visibility \ Retrograde - Microsoft Internet Explorer provided by Navy Marine Corps Intranet
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Address https://www.snt.navsup.navy.mil/queries/AssetVisibility/Retrograde/default.shtml
Go Links
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Retrograde
Queries | Decision Support | Administration | User Options | Help | Feedback | Log Out
Asset Visibility | Aviation Maintenance | In Transit | Inventory | Shipboard Engineering | Warranty
Search Criteria
Serial Number:
Document Number:
UIC / DODAAC:
R03363
NIIN:
Lead TCN:
Search
Reset
<< Back to Asset Visibility
Submit a Batch Query
Printer Friendly Version
Internet
Start
ICP Mech - Micro...
\\naeamechfs01v...
SNTS \ Asset Vi...
Document1 - Micr...
10:42

	Origin	xShip / ATAC Hub or Node	xShip / ATAC Hub or Node	DOP/DSP
Document Number	R033633089G746	R033633089G746	R033633089G746	R033633089G746
NIIN	010228572	010228572	010228572	010228572
Serial Number	2024	2024	2024	2024
Quantity	1	1	1	1
Condition Code	F	F	F	F
Activity	R03363 USS KITTY HAWK	N4179A FISC YOKOSUKA ATAC DETACHMENT	N46433 ATAC HUB North Island, CA	SW3205
Date Received	N/A	28 May 2003	09 Jun 2003	09 Jun 2003
Ship To	N46433 SUPPLY OFFICER	N46433 ATAC HUB North Island, CA	SW3205	N/A
Date Shipped	18 Apr 2003	28 May 2003	09 Jun 2003	N/A
LTCN	N/A	R033633089G746RXX	R033633095G702XXX	N/A
Transportation Mode	N/A	F - Air, Air Mobility Command	T - Air, Air Freight Forwarder	N/A
RCDN	N/A	N/A	N/A	
Signature	N/A			G.ARELLANO
(Data Source)	FACTS	ATAC	ATAC	ATAC/CAV

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Reliability

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Decision Support

SNTS \ Aviation Maintenance \ Reliability - Microsoft Internet Explorer

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Back Search Favorites Media

Address https://www.snt.navsup.navy.mil/queries/AviationMaintenance/Reliability/default.shtml Go Links

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Reliability

Strong candidate

Queries | Decision Support | Administration | User Options | Help | Feedback | Log Out

Asset Visibility | Aviation Engineering | Aviation Maintenance | Inventory | Shipboard Engineering | Shipboard Maintenance | Warranty

Search Criteria

Serial Number:

Part Number: 680800-14

CAGE Code:

Type Model Series:

Search Reset

<< Back to Aviation Maintenance

Sort: <NONE> Ascending Sort

Export to Microsoft® Excel®

Printer Friendly Version

	Serial Number	Part Number	CAGE Code	CAGE Name	Type Model Series	Total BCMs	Total Transactions
1	000	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	1
2	0000	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	1
3	00000	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	1
4	187	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	1
5	1EHL011	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	1
6	4KBP005	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	0
7	54672	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	1
8	68080014	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	0
9	765	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	0
10	B0B049	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	1
11	C0105	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	1
12	CAQ-003	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	0
13	CHK00008	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	5
14	CHK008	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	4
15	CRL00027	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	1
16	CXH-005	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	1
17	CXH00005	680800-14	06481	LITTON SYSTEMS INC	E-2C	0	1

Done Internet

Start In... SN... TO... do... SN... SN... Ho... Vis... bu... SN... SN... 10:10 AM

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SNT Web Page Query Results

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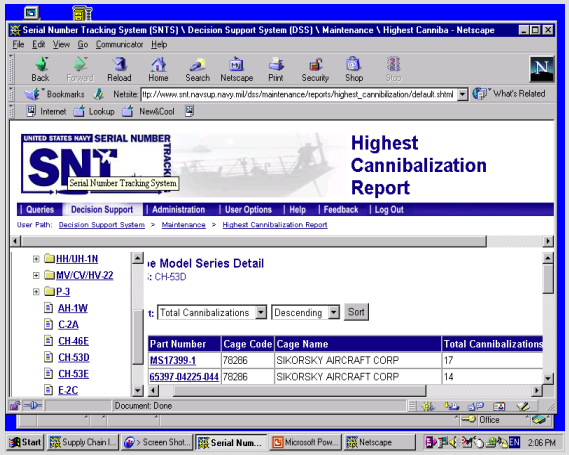
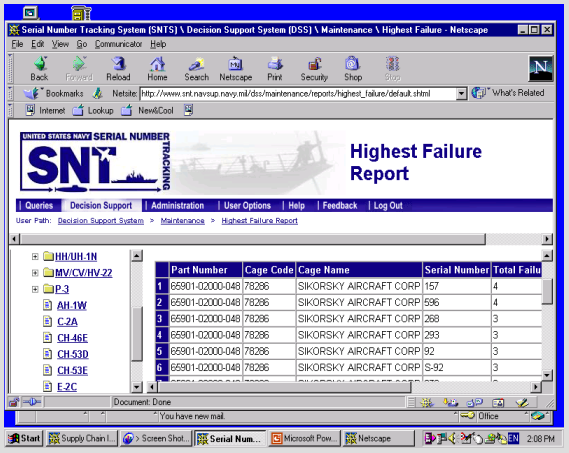
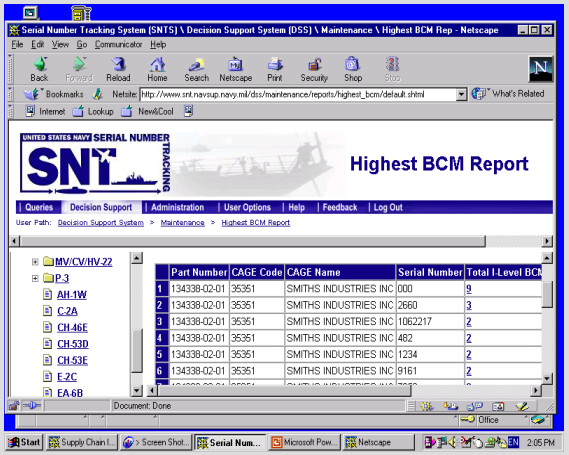
Decision Support

Generate, Collect & Analyze Maintenance Data

SNT Existing Reports


Highest Cannibalization Report
Serial Number Tracking System
Queries | Decision Support | Administration | User Options | Help | Feedback | Log Out
Part Number | Cage Code | Cage Name | Total Cannibalizations
MS17399-1 | 78286 | SIKORSKY AIRCRAFT CORP | 17
65397-04225-044 | 78286 | SIKORSKY AIRCRAFT CORP | 14


Highest Failure Report
Queries | Decision Support | Administration | User Options | Help | Feedback | Log Out
Part Number | Cage Code | Cage Name | Serial Number | Total Failu
66901-02000-048 | 78286 | SIKORSKY AIRCRAFT CORP | 157 | 4
66901-02000-048 | 78286 | SIKORSKY AIRCRAFT CORP | 596 | 4
66901-02000-048 | 78286 | SIKORSKY AIRCRAFT CORP | 268 | 3
66901-02000-048 | 78286 | SIKORSKY AIRCRAFT CORP | 293 | 3
66901-02000-048 | 78286 | SIKORSKY AIRCRAFT CORP | 92 | 3
66901-02000-048 | 78286 | SIKORSKY AIRCRAFT CORP | S-92 | 3


Highest BCM Report
Queries | Decision Support | Administration | User Options | Help | Feedback | Log Out
Part Number | CAGE Code | CAGE Name | Serial Number | Total I-Level BCM
134338-02-01 | 35351 | SMITHS INDUSTRIES INC | 000 | 9
134338-02-01 | 35351 | SMITHS INDUSTRIES INC | 2660 | 3
134338-02-01 | 35351 | SMITHS INDUSTRIES INC | 1062217 | 2
134338-02-01 | 35351 | SMITHS INDUSTRIES INC | 482 | 2
134338-02-01 | 35351 | SMITHS INDUSTRIES INC | 1234 | 2
134338-02-01 | 35351 | SMITHS INDUSTRIES INC | 9161 | 2

Additional Reports – Top Cost Driver, Top Degraders

Carcass Tracking Watch

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Serial Number Tracking System (SNTS) \ Decision Support Module (DSM) \ Retrograde \ Carcass Tra - Microsoft Internet Explorer p
File Edit View Favorites Tools Help
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Address https://www.snt.navsup.navy.mil/dss/retrograde/carcass_tracking/add_watch_form.shtml?action=add_form&watch_type=1
Go Links
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Carcass Tracking Watches
Queries | Decision Support | Administration | User Options | Help | Feedback | Log Out
User Path: Decision Support Module > Retrograde > Carcass Tracking
Add New Carcass Watch
Document Number
R03363 - 3072 - G660 -
Timeframe:
Past 90 days
Email Notifications
Email Notifications will be sent to pamela.szymczak@navy.mil. Do you wish to receive Email Notifications for this Carcass Watch?
Yes
No
Add Cancel
Internet
Start Inbox - Microsoft ... Serial Number T... Pitches Microsoft Excel - 7... Microsoft PowerP... 10:53

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Carcass Watch Notification

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Dear _____
This is an email notifying you of the status of your Carcass Watches:
Document Number: N00188-3155-GC23
NIIN: 008773277
Serial Number: 16740
Condition Code: F
Quantity: 0
Shipped From: N00188 - NAVAL AIR STATION OCEANA
Date Shipped:
LTCN:
Transportation Mode: -
Ship To: N68620 - ATAC HUB Norfolk, VA
Date Received:

NIIN: 008773277
Serial Number: 16740
Condition Code: F
Quantity: 1
Shipped From: N68620 - ATAC HUB Norfolk, VA
Date Shipped:
LTCN: N001883155GC23XXX
Transportation Mode: T - Air, Air Freight Forwarder
Ship To: SW3142
Date Received: 2003-06-05

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Wholesale System Reporting S/N

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Future

Coming Soon
DSS Reports SN of Selected Items For Receipts/ Issues

Web-enabled

SNT System

SNT WEB Site Accesses Navy Repository

DDNV 12/8/02– 3/3/03
DDDC/DDCN 1/12/03 – 3/3/03

Receipts	W/ SN	W/O SN
DDNV	6	22
DDDC	193	112
DDCN	493	201
Issues		
DDNV	15	9
DDDC	95	164
DDCN	470	314

Navy Repository

Maritime Focus

DATA BASE ACCESS:

- **CDMD-0A**
  - ✓ **Display Shipboard Configuration Data**
- **LCAV**
  - ✓ **In Transit Query**

INITIATIVES:

- **GPETE Working with NAVSEA Code 04L52**
- **Ship Configuration Validation – Working with NAVSEA Code 04L51**
- **Rapid Securing Device (RSD)**
- **AN/UYQ-70**
- **AEGIS Tubes**
- **MK92 TWT**
- **BARCO ATDC monitors and COHU cameras (Tomahawk).**
- **Digital Modular Radio System**

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Future/Initiatives

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- Revise Web Page to UID Search when Info Sys House
- Establish capability to include S/N Info W/ ERP
- Access GTN & ERP for UID/S/N Info
- Gain visibility of Navy Assets held at interservice acti
- Assist in establishing 2D data Matrix on Components
- Work w/ PPP&M to include UID type info on Package M

Summary

- SNT Project well underway
- SNTS Web Application on line – accessing live data
  - ✓ Decision Support and Reliability Modules
- Prototypes completed - proven concept
- Complying with DoD directives
- SNT is a part of (and complements) TAV

Shipboard Asset/Information Flow

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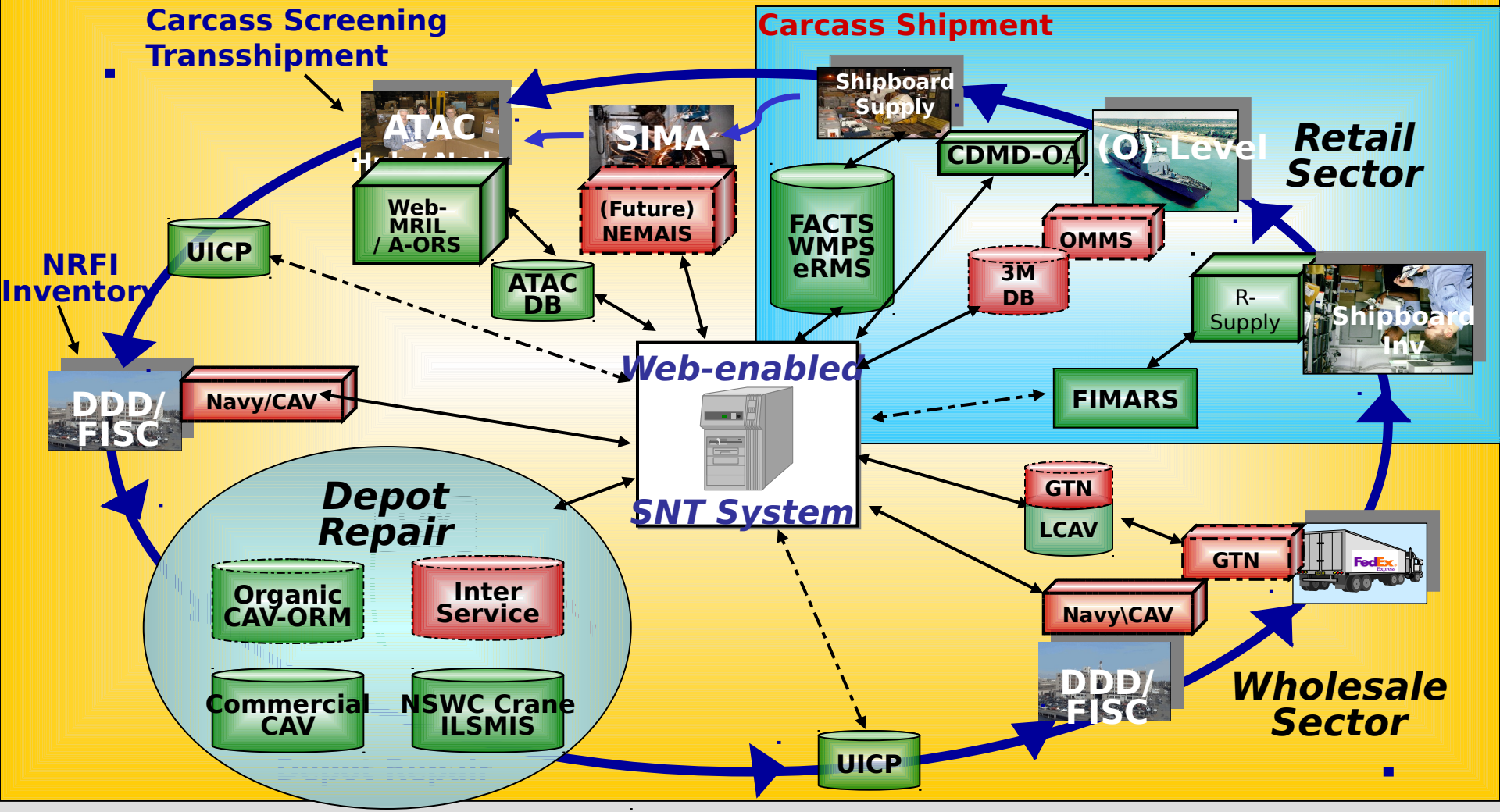
System Access



Connectivity | Not Connected | S/N | No S/N | Asset Flow